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EXAMINER

CHUNG, JASON J

ART UNIT PAPER NUMBER

2611

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/729,252

Applicant(s)

LEE, JONG JIN

Examiner

Jason J. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 3/15/04 have been fully considered but they are not persuasive. The applicant argues on page 4-6 of the response that a person of ordinary skill in the art would not have been motivated to combine the applicant's admitted prior art with Decker. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the examiner uses the applicant's admitted prior art to teach a majority of the limitations and the Decker reference as a teaching of multiple modulators.

The applicant added new claims 3-6. Thus, the applicant's arguments with respect to claims 3-6 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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1. Claims 1, 2, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission of prior art in view of Decker (US Patent # 6,009,465).

Regarding claim 1, applicant discloses figures 1 and 2 as prior art and describes the prior art in 1-3 of the specification. The applicant specifically states, "Description of the Prior Art" on page 1, line 14 of the specification. The applicant discloses RF modulation circuit 130 includes a switch 131 turned on/off in response to a switching voltage  $V_{sw}$  for passing/blocking the RF signal from the RF input terminal to the RF output terminal (page 2, lines 10-15), which meets the limitation on a switch turned on/off in response to a switching voltage for passing/blocking a radio frequency input terminal to a radio frequency output terminal.

The applicant discloses a mixer 133 for mixing the television signal modulated by the modulator 132 with the RF signal passed by the switch 131 and outputting the resulting signal to the connected television via the RF output terminal RF out (page 2, lines 18-22), which meets the limitations on a mixer for mixing the television signal modulated by the modulator with the radio frequency signal passed by the switch and outputting the mixed signal to connected television via the radio frequency output terminal.

The applicant discloses RF modulation circuit 130 includes a switch 131 turned on/off in response to a switching voltage  $V_{sw}$  for passing/blocking the RF signal from the RF input terminal to the RF output terminal, a modulator 132 enabled in response to an operating voltage for modulating the audio and video signals from the channel demodulator (page 2, lines 10-18), which meets the limitation on the switch is turned off to block the radio frequency signal when the modulator is enabled.

The applicant discloses a modulator 132 enabled in response to an operating voltage  $V_{cc}$  for modulating the audio and video signals AS and VS from the channel demodulator into a television signal (page 2, lines 15-18), but remains silent on a plurality of modulators. The applicant's prior art fails to disclose a plurality of modulators. Decker discloses RF modulators operate to provide carrier signals for the video signals that the headend controller routes to the input of the respective modulators (column 4, lines 45-48). Decker discloses each modulator is set to a preselected frequency or channel and each of the remote televisions is assigned to a particular frequency and the channel modulators carry cable television products and alter the frequency positions and scramble the signals by switching the frequencies of the specific video and audio signals (column 4, lines 48-63), which meets the limitation on a plurality of modulators, each of the modulators being enabled in response to a corresponding operating voltages for modulating input audio signals and video signals into television signals at a plurality of channels independent of one another. Additionally, Decker discloses the first combiner 170 combines the signals from various modulators 135 with signals from the preview modulator 160 and the RF control signal and the signals are then combined with cable or satellite television channels using the second combiner 174 (column 5, lines 15-29), which meets the limitation on a mixer for mixing the plurality of television signals modulated by the modulators with the radio frequency signals passed by the switch and outputting the mixed signals to connected televisions via the radio frequency output terminal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify applicant's admission of prior art to have multiple modulators as taught by Decker in order to transmit signals over the cable on different specific carrier frequencies.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify applicant's admission of prior art to have multiple modulators as taught by Decker in order to distribute the workload of modulation among multiple modulators instead of putting the burden on one modulator.

Regarding claim 6, as disclosed in claims 1-2 rejections, Decker discloses a plurality of modulators. The applicant's discloses the switching voltage  $V_{sw}$  is supplied with the operating voltage  $V_{cc}$  and the RF modulation circuit 130 includes a switch 131 turned on/off in response to a switching voltage  $V_{sw}$  for passing/blocking the RF signal from the RF input terminal to the RF output terminal, a modulator 132 enabled in response to an operating voltage for modulating the audio and video signals from the channel demodulator (page 2, lines 10-22 of the applicant's specification; figure 2), which meets the limitation on the switching voltage is supplied together with the operating voltages of the modulators, whereby the supplied switching voltage causes the switch to block the radio frequency signal when the modulators are enabled by the supplied operating voltages.

2. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Decker in view of Kostreki (US Patent # 5,563,892).

Regarding claim 3, neither the applicant's admitted prior art nor Decker discloses a plurality of MPEG boards connected to one of the modulators for supplying the modulator with the corresponding input audio and video signals. Kostreki discloses MPEG boards 11 connected to each of the modulators 13 (figure 6), which meets the limitation on a plurality of MPEG boards connected to one of the modulators for supplying the modulator with the corresponding input audio and video signals. It would have been obvious to one of ordinary skill in the art at

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the time the invention was made to modify the applicant's admitted prior art in view of Decker to have MPEG boards connected to the modulators as taught by Kostreki in order to provide digital quality television programming.

Regarding claim 4, Kostreki suggests Internet connected to the MPEG boards by disclosing the MPEG sources may include a digital server system (column 11, lines 17-26). Neither the applicant's admitted prior art, Decker, nor Kostreki discloses MPEG boards connected to the Internet. The examiner takes Official Notice that a server using Internet communications is notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the applicant's admitted prior art in view of Decker in further view of Kostreki to include Internet communications for the server in order to provide information over the World Wide Web.

Regarding claim 5, Kostreki discloses a RF combiner 15 (column 13, lines 10-12; figure 6). Kostreki discloses a microwave-broadcasting antenna 27 (column 14, lines 11-25; figure 6), which meets the limitation on a radio frequency input terminal is connected to an antenna.

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Chung whose telephone number is (703) 305-7362. The examiner can normally be reached on M-F, 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJC



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PRIMARY EXAMINER